

## REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

Support for the amendments to claims 24, 28-32, 36, and 40 is provided, for example, in the specification on page 20, lines 4-6. The amendments were not presented earlier due the unforeseeability of the remarks presented in the Final Rejection.

Claims 24-40 were rejected, under 35 USC § 103(a), as being unpatentable over Hwang et al. (US 2002/0168945) in view of Padovani et al. (US 7,079,550). The Applicants respectfully traverse these rejections based on the points set forth below.

Claim 24 defines a method for controlling uplink data transmissions in which a UMTS Node B transmits a feedback message to a user equipment and the received feedback message triggers a synchronous retransmission of a retransmission data packet from the user equipment. The Final Rejection acknowledges that Hwang does not disclose synchronous retransmission of data (see Final Rejection page 3, lines 3-4). To overcome this deficiency, the Final Rejection proposes that Padovani's disclosure of a scheduled transmission corresponds to the claimed synchronous retransmission (see Final Rejection section 1, lines 3-5).

However, claim 24 relates to a Hybrid Automatic Repeat reQuest (HARQ) protocol with synchronous retransmissions and recites that a feedback message triggers a synchronous retransmission of a retransmission data packet for a previously received but not successfully decoded data packet. Synchronous retransmission has a specific meaning within mobile communications systems standardized by 3GPP (such as UMTS) as the next generation LTE system. Because claim 24 expressly recites a Universal Mobile Telecommunications System

(UMTS), the terms used within the claim language should be interpreted in the context of their meaning within a UMTS system.

With respect to UMTS, synchronous retransmission refers to a specific implementation of the timing and resource utilization of a retransmission. If a retransmission is sent synchronously, this means that the retransmission is not scheduled, that is, the user equipment does not send a scheduling request for the retransmission to request the allocation of a resource for the retransmission and, therefore, does not receive a scheduling grant for the retransmission.

In other words, the user equipment is autonomously sending the retransmission using some known radio resource and a predetermined timing relative to a given timing reference (for example, the initial transmission for which the retransmission is to be sent). In this way, a significant amount of signaling can be avoided as no scheduling related signaling needs to be transmitted from the user equipments and Node B for scheduling the retransmission.

In this context, Padovani teaches exactly the opposite of a synchronous retransmission, namely, a scheduler that schedules all transmissions of mobile stations, as acknowledged in the Final Rejection (see Final Rejection, section 1).

It should be noted that the term "synchronous" in the context of "synchronous retransmissions" or "asynchronous retransmissions" is not specifically referring to the synchronization of the communication in terms of synchronizing the transmission timing and resources. The transmission time and the resources for the retransmissions are known in both cases. Instead, the term "synchronous" refers to the scheduling mechanism utilized for the retransmissions. As outlined above, retransmissions in a synchronous retransmission scheme are

sent on known resources relative to a given timing reference without any additional scheduling related control signaling, which is in contrast to what is done in Padovani.

Claim 24 also recites that a Node B transmits a common control message to user equipments, that restricts the Transmission Format Combination Subset (TFCS) of each of the user equipments so as to set a maximum uplink resource common to the user equipments that each user equipment may utilize for uplink transmissions on an uplink data channel. The Final Rejection proposes that Padovani discloses this subject matter in table 1 of column 21.

However, a Transmission Format Combination Subset (TFCS) is a specific term of a UMTS communication system, which defines a set of transmission format combinations from which user equipments can choose. In this respect, Padovani does not relate to UMTS and, thus, necessarily cannot teach this UMTS-specific feature. Padovani explicitly relates to an IS-95 communication system (see Padovani col. 1, lines 22-28, and col. 20, lines 19-25, with respect to the embodiment to which table 1 pertains).

Furthermore, Padovani's disclosure was originally filed in 1997, while the development of UMTS began at the end of 1998. Taking into account this historic context, it is apparent that Padovani cannot teach the claimed UMTS-specific feature of restricting a transmission format combination subset by a common control message. And Hwang is not cited in the Final Rejection for supplementing the teachings of Padovani in this regard.

Accordingly, the Applicants submit that the teachings of Hwang and Padovani, considered individually or in combination, do not render obvious the subject matter defined by independent claim 24. Independent claims 28, 32, and 36 similarly recite the above-mentioned subject matter distinguishing method claim 24 from the applied references, although claims 28

and 36 do so with respect to apparatuses. Therefore, allowance of claims 24, 28, 32, and 36 and all claims dependent therefrom is warranted.

In view of the above, it is submitted that this application is in condition for allowance, and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

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